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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/528,356	03/17/2000	MASAHITO NIIKAWA	15162/01640	6551

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EXAMINER
CHANG, KENT WU

ART UNIT	PAPER NUMBER
2673	11

DATE MAILED: 01/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

FN

Office Action Summary	Application No.	Applicant(s)	
	09/528,356	NIIKAWA ET AL.	
	Examiner	Art Unit	
	Kent Chang	2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 October 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,12-24,26 and 27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,12-24,26 and 27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2, 6, 7, 12-14, 20, 21, and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bloch et al. (5,745,102) in view of Kazami et al. (5,937,107).

Bloch et al. teaches (column 1, line 64 - column 2, line 14; column 3, lines 49-65; and column 4, lines 49-65: figs. 1, 2A, and 2B) of a driving device (figs. 2A and 213, item 210) which accepts a storage medium (fig. 1A, item 120) comprising a memory section to be stored with data and a display section (fig. 1A, item 110) to display information and record data to the memory section, said driving device comprising: a receiving section (fig 2 A, slot for medium not labeled) where the storage medium can be set and ejected, the display section of the storage medium being hidden and not being

viewable when the storage medium is set in the receiving section; and a driver which records data to the memory section of the storage medium and renews information displayed on the display section of the storage medium in accordance with the data while the storage medium is set in the receiving section. He also teaches (column 11, lines 3-22: figs. 2A, 213, 7A, and 713) of an information processing system comprising: a storage medium (fig. 2A and 213, item 120) which has a memory section to be stored with data and a display section to display information; and an information processing device (fig. 7A, item 712) where the storage medium is set to be accessed by the information processing device and can be ejected, the display section of the storage medium being hidden and not being viewable while the storage medium is set in the information processing device; wherein the information processing device comprises: a data processing unit (fig. 7A, item 720 or fig. 713, item 754) which processes data; and a driver which records data processed by the data processing unit to the memory section of the storage medium and renews information on the display section of the storage medium in accordance with the data. In regard to claims 2,7, and 21, Bloch et al. teaches (column 3, lines 49-65; fig. 1A) of a power supply section (fig. 1A, item 116) which supplies electric power to the display section (fig. 1A, item 110) of the storage medium so that the driver can renew information on the display section. Bloch et al. do not expressly teach that the driver records image data to the memory section and writes a thumbnail image of the image data on the display section.

Kazami et al. teaches (column 2, lines 49-63; fig. 1) that the driver records image data to the memory section (fig. 1, item 37) and writes a thumbnail image of the image data on the display section (fig. 1, items 28 and 29). At the time the invention was made,

it would have been obvious to a person of ordinary skill in the art to stored images in memory and display them on a display. One of ordinary skill in the art would have been motivated to do this because it would have provided a way of looking at several images at once which is what Kazami et al. intended, and displaying thumbnail image instead of the file name in the memory disk obviously provides more information about the files being stored to the user, but would require a bigger display section and slow down the operation of the system. Furthermore, at the time the invention was made, it would also have been obvious to a person of ordinary skill in the art that the processor having the ability to store images in memory would also have had the ability to delete the images from memory, as it would have been able to do with any other type data. Furthermore, at the time the invention was made, it would also have been obvious to a person of ordinary skill in the art that a camcorder could be used with the device of Bloch et al., thereby providing a means to input image data.

4. Claims 3-5, 8-10, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bloch et al. (5,745,102) and Kazami et al. (5,937,107) as applied to claims 1, 2, 6, 12-14, 20, 21 above, and further in view of Hatano et al. (5,731,861).

In regard to claims 3-5, 8-10, and 22-24, Bloch et al. does not expressly teach that the display section uses a material with a memory effect nor that the material is liquid crystal which exhibits a cholesteric phase at a room temperature. Hatano et al. teaches (column 6, lines 12-28; fig. 1) that the display section uses a material with a memory effect (fig. 1, item 3) and that the material is liquid crystal (fig. 1, item 3a) which exhibits a cholesteric phase at a room temperature. At the time the invention was made, it would

have been obvious to a person of ordinary skill in the art to use a display that utilized a material with memory effect of. One of ordinary skill in the art would have been motivated to do this because for several reasons: no power would have had to be drawn from the power supply (fig. 1, item 116) in the display section of Bloch et al. unless the contents of the display was actually going to be changed, it would have made it possible for the drive circuitry (fig. 1A, item 114) not to contain memory thereby simplifying that circuit, and the power supply wouldn't even have needed to resided with the display section since power could then have been supplied through item 112 of fig. 1A when it was needed. It is also well known in the art that the property of the liquid crystals to possess bi-stable states is a property of cholesteric phase and this is also well known to occur at room temperature.

7. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Block et al. (5,745,102) and Kazami et al. (5,937,107) as applied to claims 1, 2, 6, 7, 12-14, 20, and 21 above, and further in view of Houlberg et al. (5,887,198).

In regard to claims 15 and 16, Bloch et al. as modified does not teach that the driver performs formatting of the memory section nor that the driver changes information on the display section in accordance with a format to a piece of information indicating format. Houlberg et al. teaches (column 2, lines 18-21) that the driver performs formatting of the memory section. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to format the memory section. One of ordinary skill in the art would have been motivated to do this because it is a common practice to format memory in a device so as to except the data in a particular form easily.

At the time the invention was made, it would also have been obvious to a person of ordinary skill in the art that in formatting memory, one is usually given an indication on the display that this has occurred.

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bloch et al. (5,745,102) and Kazami et al. (5,937,107) as applied to claims 6 above, and further in view of Cannon et al. (5,600,563).

In regard to claim 17, Bloch et al. does not expressly teach that the processing device is a printer. Cannon et al. teaches (column 2, line 65- column 3, line 12) that the processing device is a printer. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art that there were printers then that did contain processing systems that could read removable data storage devices and both display and print the contents thereof.

5. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bloch et al. (5,745,102), Kazami et al. (5,937,107), and Cannon et al. (5,600,563) as applied to claim 17 above, and further in view of Tagashira et al. (4,200,390).

In regard to claims 18 and 19, Bloch et al. and Cannon et al. together do not expressly teach that the driver renews information displayed on the display section about a number of prints on completion of printing. Tagashira et al. teaches (column 11, lines 7-19; figs. 1 and 2) teach that the driver renews information displayed on the display section (fig.2, item 101 a) about a number of prints on completion of printing. At the time the invention was made, it would have been obvious to a person of ordinary skill in the

art that there were printers then that did have displays on them that displayed information about the number of prints printed upon completion of printing.

Response to Arguments

6. Applicant's arguments filed 10/29/02 have been fully considered but they are not persuasive.

Applicant mainly argues that none of the prior art of record teaches displaying the image data. However, Kazami et al clearly teaches (column 2, lines 49-63; fig. 1) that the driver records image data to the memory section (fig. 1, item 37) and writes a thumbnail image of the image data on the display section (fig. 1, items 28 and 29). One of ordinary skill in the art would have been motivated to do this because it would have provided a way of looking at several images at once which is what Kazami et al. intended, and displaying thumbnail image instead of the file name in the memory disk obviously provides more information about the files being stored to the user, but would require a bigger display section and slow down the operation of the system.

The remainder of the pertinent topics for argument are present in the appropriate rejections above.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kent Chang whose telephone number is 703-305-4824. The examiner can normally be reached on Monday to Thursday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached at 703-305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 305-9700.

Kent Chang
Primary Examiner
Art Unit 2673

Kc

1/12/03